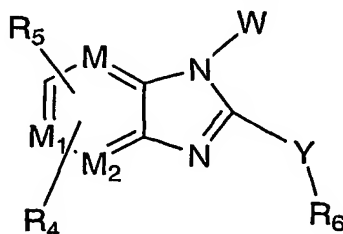


## WHAT IS CLAIMED IS:

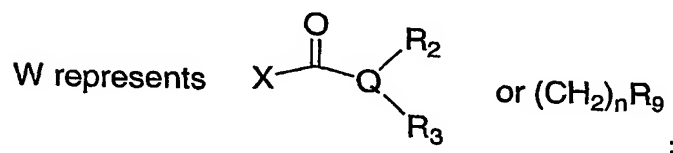
1. A compound of the structural formula I:



Formula I

or a pharmaceutically acceptable salt, enantiomer, diastereomer or mixture thereof:  
wherein,

- 10 M, M1, and M2, independently are CH or N;



R represents hydrogen, or C<sub>1-6</sub> alkyl;

- 15 X represents  $-(\text{CHR})_p-$ , or a bond;

Y represents  $-(\text{CH}_2)_r-$ ,  $-\text{CO}(\text{CH}_2)_n-$ ,  $-\text{SO}_2-$ ,  $-\text{O}-$ ,  $-\text{S}-$ ,  $-\text{CH}(\text{OR}')$ , or  $\text{CONR}'$ ;

- 20 R' represents hydrogen, C<sub>1-10</sub> alkyl,  $-(\text{CH}_2)_n\text{C}_{1-6}$  alkoxy,  $-(\text{CH}_2)_n\text{C}_{3-8}$  cycloalkyl,  $-(\text{CH}_2)_n\text{C}_{3-10}$  heterocyclyl, said alkyl, heterocyclyl, aryl or heteroaryl optionally substituted with 1-3 groups selected from R<sup>a</sup>;

- or, R' and R<sub>6</sub> taken together with the intervening N atom of  $\text{CONR}'$  of Y to form a 4-10 membered carbocyclic or heterocyclic ring optionally interrupted by 1-3 atoms of O, S, C(O) or NR, and optionally  
25 having 1-4 double bonds, and optionally substituted by 1-3 groups selected from R<sup>a</sup>;

Q represents N, CR<sub>Y</sub>, or O, wherein R<sub>2</sub> is absent when Q is O;

R<sub>Y</sub> represents H, C<sub>1-10</sub> alkyl, C<sub>1-6</sub> alkylSR, -(CH<sub>2</sub>)<sub>n</sub>O(CH<sub>2</sub>)<sub>m</sub>OR,

5 -(CH<sub>2</sub>)<sub>n</sub>C<sub>1-6</sub> alkoxy, -(CH<sub>2</sub>)<sub>n</sub>C<sub>3-8</sub> cycloalkyl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>3-10</sub> heterocyclyl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>5-10</sub> heteroaryl, -N(R)<sub>2</sub>, -COOR, or -(CH<sub>2</sub>)<sub>n</sub>C<sub>6-10</sub> aryl, said alkyl, heterocyclyl, aryl or heteroaryl optionally substituted with 1-5 groups selected from R<sub>a</sub>;

10 or, R<sub>2</sub>-Q-R<sub>3</sub> form a 3-15 membered carbocyclic or heterocyclic ring or fused ring, optionally interrupted by 1-3 atoms of O, S, C(O) or NR, and optionally having 1-5 double bonds, and optionally substituted by 1-3 groups selected from R<sub>a</sub>;

R<sub>w</sub> represents H, C<sub>1-6</sub> alkyl, -C(O)C<sub>1-6</sub> alkyl, -C(O)OC<sub>1-6</sub> alkyl, -SO<sub>2</sub>N(R)<sub>2</sub>, -SO<sub>2</sub>C<sub>1-6</sub> alkyl, -SO<sub>2</sub>C<sub>6-10</sub> aryl, NO<sub>2</sub>, CN or -C(O)N(R)<sub>2</sub>;

15 R<sub>2</sub> represents hydrogen, C<sub>1-10</sub> alkyl, C<sub>1-6</sub> alkylSR, -(CH<sub>2</sub>)<sub>n</sub>O(CH<sub>2</sub>)<sub>m</sub>OR,

-(CH<sub>2</sub>)<sub>n</sub>C<sub>1-6</sub> alkoxy, -(CH<sub>2</sub>)<sub>n</sub>C<sub>3-8</sub> cycloalkyl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>3-10</sub> heterocyclyl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>5-10</sub> heteroaryl, -N(R)<sub>2</sub>, -COOR, or -(CH<sub>2</sub>)<sub>n</sub>C<sub>6-10</sub> aryl, said alkyl, heterocyclyl, aryl or heteroaryl optionally substituted with 1-3 groups selected from R<sub>a</sub>;

20 R<sub>3</sub> represents hydrogen, C<sub>1-10</sub> alkyl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>3-8</sub> cycloalkyl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>3-10</sub> heterocyclyl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>5-10</sub> heteroaryl, -(CH<sub>2</sub>)<sub>n</sub>COOR, -(CH<sub>2</sub>)<sub>n</sub>C<sub>6-10</sub> aryl, -(CH<sub>2</sub>)<sub>n</sub>NHR<sub>8</sub>, -(CH<sub>2</sub>)<sub>n</sub>N(R)<sub>2</sub>, -(CH<sub>2</sub>)<sub>n</sub>NHCOOR, -(CH<sub>2</sub>)<sub>n</sub>N(R<sub>8</sub>)CO<sub>2</sub>R, -(CH<sub>2</sub>)<sub>n</sub>N(R<sub>8</sub>)COR, -(CH<sub>2</sub>)<sub>n</sub>NHCO<sub>2</sub>R, -(CH<sub>2</sub>)<sub>n</sub>CONH(R<sub>8</sub>), aryl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>1-6</sub> alkoxy, CF<sub>3</sub>, -(CH<sub>2</sub>)<sub>n</sub>SO<sub>2</sub>R, -(CH<sub>2</sub>)<sub>n</sub>SO<sub>2</sub>N(R)<sub>2</sub>, -(CH<sub>2</sub>)<sub>n</sub>CON(R)<sub>2</sub>, -(CH<sub>2</sub>)<sub>n</sub>CONHC(R)<sub>3</sub>, -  
25 (CH<sub>2</sub>)<sub>n</sub>COR<sub>8</sub>, nitro, cyano or halogen, said alkyl, alkoxy, heterocyclyl, aryl or heteroaryl optionally substituted with 1-3 groups of R<sub>a</sub>;

R<sub>4</sub> and R<sub>5</sub> independently represent hydrogen, C<sub>1-6</sub> alkoxy, OH, OCOR<sub>3</sub>, C<sub>1-6</sub> alkyl, COOR, SO<sub>3</sub>H,

30 O(CH<sub>2</sub>)<sub>n</sub>N(R)<sub>2</sub>, O(CH<sub>2</sub>)<sub>n</sub>CO<sub>2</sub>R, C<sub>1-6</sub> alkylcarbonyl, S(O)<sub>q</sub>R<sub>Y</sub>, (CH<sub>2</sub>)<sub>n</sub>OPO(OH)<sub>2</sub>, O(CH<sub>2</sub>)<sub>n</sub>OPO(OH)<sub>2</sub>, N(R)<sub>2</sub>, CF<sub>3</sub>, nitro, cyano or halogen where said alkyl, and alkoxy, are optionally substituted with 1-7 groups of R<sub>a</sub>;

R<sub>6</sub> represents hydrogen, C<sub>1-10</sub> alkyl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>6-10</sub> aryl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>5-10</sub> heteroaryl, (C<sub>6-10</sub> aryl)O-, -(CH<sub>2</sub>)<sub>n</sub>C<sub>3-10</sub> heterocyclyl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>3-8</sub> cycloalkyl, -COOR, -C(O)CO<sub>2</sub>R, said aryl, heteroaryl, heterocyclyl and alkyl optionally substituted with 1-3 groups selected from R<sup>a</sup>;

5 R<sub>7</sub> represents hydrogen, C<sub>1-6</sub> alkyl, -(CH<sub>2</sub>)<sub>n</sub>COOR or -(CH<sub>2</sub>)<sub>n</sub>N(R)<sub>2</sub>,

R<sub>8</sub> represents -(CH<sub>2</sub>)<sub>n</sub>C<sub>3-8</sub> cycloalkyl, -(CH<sub>2</sub>)<sub>n</sub> C<sub>3-10</sub> heterocyclyl, C<sub>1-6</sub> alkoxy or -(CH<sub>2</sub>)<sub>n</sub>C<sub>5-10</sub> heteroaryl, said heterocyclyl, aryl or heteroaryl optionally substituted with 1-3 groups selected from R<sup>a</sup>;

10 R<sub>9</sub> represents C<sub>1-10</sub> alkyl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>1-6</sub> alkoxy, -(CH<sub>2</sub>)<sub>n</sub>C<sub>3-8</sub> cycloalkyl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>3-10</sub> heterocyclyl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>6-10</sub> aryl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>5-10</sub> heteroaryl, or -N(R)<sub>2</sub> wherein said alkyl, alkoxy, cycloalkyl, heterocyclyl, aryl, or heteroaryl are optionally substituted with 1-3 groups selected from R<sup>a</sup>;

R<sup>a</sup> represents F, Cl, Br, I, CF<sub>3</sub>, N(R)<sub>2</sub>, NO<sub>2</sub>, CN, -COR<sub>8</sub>, -CONHR<sub>8</sub>, -CON(R<sub>8</sub>)<sub>2</sub>, -O(CH<sub>2</sub>)<sub>n</sub>COOR, -  
 15 NH(CH<sub>2</sub>)<sub>n</sub>OR, -COOR, -OCF<sub>3</sub>, -NHCOR, -SO<sub>2</sub>R, -SO<sub>2</sub>NR<sub>2</sub>, -SR, (C<sub>1</sub>-C<sub>6</sub> alkyl)O-, -  
 (CH<sub>2</sub>)<sub>n</sub>O(CH<sub>2</sub>)<sub>m</sub>OR, -(CH<sub>2</sub>)<sub>n</sub>C<sub>1-6</sub> alkoxy, (aryl)O-, -OH, (C<sub>1</sub>-C<sub>6</sub> alkyl)S(O)<sub>m</sub>-, H<sub>2</sub>N-C(=NH)-, (C<sub>1</sub>-C<sub>6</sub>  
 alkyl)C(O)-, (C<sub>1</sub>-C<sub>6</sub> alkyl)OC(O)NH-, -(C<sub>1</sub>-C<sub>6</sub> alkyl)NR<sub>w</sub>(CH<sub>2</sub>)<sub>n</sub>C<sub>3-10</sub> heterocyclyl-R<sub>w</sub>, -(C<sub>1</sub>-C<sub>6</sub>  
 alkyl)O(CH<sub>2</sub>)<sub>n</sub>C<sub>3-10</sub> heterocyclyl-R<sub>w</sub>, -(C<sub>1</sub>-C<sub>6</sub> alkyl)S(CH<sub>2</sub>)<sub>n</sub>C<sub>3-10</sub> heterocyclyl-R<sub>w</sub>, -(C<sub>1</sub>-C<sub>6</sub> alkyl)-  
 20 C<sub>3-10</sub> heterocyclyl-R<sub>w</sub>, -(CH<sub>2</sub>)<sub>n</sub>-Z<sup>1</sup>-C(=Z<sup>2</sup>)N(R)<sub>2</sub>, -(C<sub>2-6</sub> alkenyl)NR<sub>w</sub>(CH<sub>2</sub>)<sub>n</sub>C<sub>3-10</sub> heterocyclyl-R<sub>w</sub>, -  
 (C<sub>2-6</sub> alkenyl)O(CH<sub>2</sub>)<sub>n</sub>C<sub>3-10</sub> heterocyclyl-R<sub>w</sub>, -(C<sub>2-6</sub> alkenyl)S(CH<sub>2</sub>)<sub>n</sub>C<sub>3-10</sub> heterocyclyl-R<sub>w</sub>, -(C<sub>2-6</sub>  
 alkenyl)-C<sub>3-10</sub> heterocyclyl-R<sub>w</sub>, -(C<sub>2-6</sub> alkenyl)-Z<sup>1</sup>-C(=Z<sup>2</sup>)N(R)<sub>2</sub>, -(CH<sub>2</sub>)<sub>n</sub>SO<sub>2</sub>R, -(CH<sub>2</sub>)<sub>n</sub>SO<sub>3</sub>H, -  
 (CH<sub>2</sub>)<sub>n</sub>PO(OR)<sub>2</sub>, -(CH<sub>2</sub>)<sub>n</sub>OPO(OR)<sub>2</sub>, -O(CH<sub>2</sub>)<sub>n</sub>SO<sub>2</sub>R, -O(CH<sub>2</sub>)<sub>n</sub>PO(OR)<sub>2</sub>, -O(CH<sub>2</sub>)<sub>n</sub>OPO(OR)<sub>2</sub>,  
 cyclohexyl, morpholinyl, piperidyl, pyrrolidinyl, thiophenyl, phenyl, pyridyl, imidazolyl, oxazolyl,  
 isoxazolyl, thiazolyl, thienyl, furyl, isothiazolyl, C<sub>2-6</sub> alkenyl, and C<sub>1</sub>-C<sub>10</sub> alkyl, said alkyl, alkenyl,  
 25 alkoxy, phenyl, pyridyl, imidazolyl, oxazolyl, isoxazolyl, thiazolyl, thienyl, furyl, and isothiazolyl  
 optionally substituted with 1-3 groups selected from C<sub>1</sub>-C<sub>6</sub> alkyl, COOR, SO<sub>3</sub>H, OH, F, Cl, Br, I, and -  
 O(CH<sub>2</sub>)<sub>n</sub>CH(OH)CH<sub>2</sub>SO<sub>3</sub>H;

Z<sup>1</sup> and Z<sup>2</sup> independently represents NR<sub>w</sub>, O, CH<sub>2</sub>, or S;

30

m is 0-3;

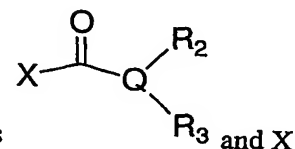
n is 0-3;

q is 0-2;

r is 0-6 and

p is 0-2.

2. A compound according to claim 1 wherein M, M1, and M2 are all CH, or at least one of M, M1 or M2 is N.



3. A compound according to claim 2 wherein W represents represents CHR<sub>7</sub>.

4. A compound according to claim 2 wherein W represents (CH<sub>2</sub>)<sub>n</sub>R<sub>9</sub>.

5. A compound according to claim 3 wherein Y is -CO(CH<sub>2</sub>)<sub>n</sub>, -(CH<sub>2</sub>)<sub>r</sub>- or CH(OR) and Q is N or R<sub>y</sub>.

6. A compound according to claim 5 wherein R<sub>6</sub> is C<sub>1-10</sub> alkyl, (CH<sub>2</sub>)<sub>n</sub>C<sub>6-10</sub> aryl, (CH<sub>2</sub>)<sub>n</sub>C<sub>5-10</sub> heteroaryl, (CH<sub>2</sub>)<sub>n</sub>C<sub>3-10</sub> heterocyclyl, or (CH<sub>2</sub>)<sub>n</sub>C<sub>3-8</sub> cycloalkyl, said aryl, heteroaryl, heterocyclyl and alkyl optionally substituted with 1 to 3 groups of R<sub>a</sub>, Y is -CO(CH<sub>2</sub>)<sub>n</sub>, Q is N, and R<sub>2</sub> and R<sub>3</sub> are independently selected from C<sub>1-10</sub> alkyl, (CH<sub>2</sub>)<sub>n</sub>C<sub>3-8</sub> cycloalkyl, -(CH<sub>2</sub>)<sub>n-5~10</sub>-membered heteroaryl, -(CH<sub>2</sub>)<sub>n</sub>C<sub>6-10</sub> aryl, -(CH<sub>2</sub>)<sub>n-3~10</sub>-membered heterocyclyl, and C<sub>1-6</sub> alkylOH said cycloalkyl, aryl, heteroaryl, heterocyclyl and alkyl optionally substituted with 1 to 3 groups of R<sub>a</sub>.

7. A compound which is:

1-(1-Benzyl-6-methoxy-1*H*-benzimidazol-2-yl)-2,2-dimethylpropan-1-one,

1-(1-benzyl-5-methoxy-1*H*-benzimidazol-2-yl)-2,2-dimethylpropan-1-one,

1-(5-Methoxy-1*H*-benzimidazol-2-yl)-2,2-dimethylpropan-1-one,

Methyl [2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]acetate,

Methyl [2-(2,2-dimethylpropanoyl)-5-methoxy-1*H*-benzimidazol-1-yl]acetate,

[2-(2,2-Dimethylpropanoyl)-5-methoxy-1*H*-benzimidazol-1-yl]acetic acid,

2-[2-(2,2-Dimethylpropanoyl)-5-methoxy-1*H*-benzimidazol-1-yl]-*N,N*-bis(3-methylbutyl)acetamide,

1-(Diethoxymethyl)-6-methoxy-1*H*-benzimidazole,

1-(diethoxymethyl)-5-methoxy-1*H*-benzimidazole,

1-(6-Methoxy-1*H*-benzimidazol-2-yl)-2,2-dimethylpropan-1-one,

*N,N*-Dibutyl-2-[2-(2,2-dimethylpropanoyl)-5-methoxy-1*H*-benzimidazol-1-yl]acetamide,

2-[2-(2,2-Dimethylpropanoyl)-5-methoxy-1*H*-benzimidazol-1-yl]-*N,N*-diisobutylacetamide,

- 2-[2-(2,2-Dimethylpropanoyl)-5-methoxy-1*H*-benzimidazol-1-yl]-*N,N*-dipropylacetamide,  
*N*-(Cyclopropylmethyl)-2-[2-(2,2-dimethylpropanoyl)-5-methoxy-1*H*-benzimidazol-1-yl]-*N*-  
propylacetamide,  
2-[2-(2,2-Dimethylpropanoyl)-5-methoxy-1*H*-benzimidazol-1-yl]-*N*-ethyl-*N*-(3-methylbutyl)acetamide,  
5 *N*-Butyl-2-[2-(2,2-dimethylpropanoyl)-5-methoxy-1*H*-benzimidazol-1-yl]-*N*-ethylacetamide,  
*N*-Cyclohexyl-2-[2-(2,2-dimethylpropanoyl)-5-methoxy-1*H*-benzimidazol-1-yl]-*N*-ethylacetamide,  
2-[2-(2,2-Dimethylpropanoyl)-5-methoxy-1*H*-benzimidazol-1-yl]-*N*-ethyl-*N*-1,3-thiazol-2-ylacetamide,  
[2-(2,2-Dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]acetic acid,  
2-[2-(2,2-Dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-*N,N*-bis(3-methylbutyl)acetamide,  
10 *N,N*-Dibutyl-2-[2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]acetamide,  
2-[2-(2,2-Dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-*N,N*-diisobutylacetamide,  
2-[2-(2,2-Dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-*N,N*-dipropylacetamide,  
*N*-(Cyclopropylmethyl)-2-[2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-*N*-  
propylacetamide,  
15 2-[2-(2,2-Dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-*N*-ethyl-*N*-(3-methylbutyl)acetamide,  
*N*-Butyl-2-[2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-*N*-ethylacetamide,  
*N*-Cyclohexyl-2-[2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-*N*-ethylacetamide,  
2-[2-(2,2-Dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-*N*-ethyl-*N*-1,3-thiazol-2-ylacetamide,  
*N*-(3,3-Dimethylbutyl)-2-[2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-*N*-  
20 ethylacetamide,  
1-[2-(2,2-Dimethylpropanoyl)-5-methoxy-1*H*-benzimidazol-1-yl]-3,3-dimethylbutan-2-one, 1-[2-(2,2-  
Dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-3,3-dimethylbutan-2-one,  
1-(1-Benzyl-5-methoxy-1*H*-benzimidazol-2-yl)-2,2-dimethylpropan-1-one,  
1-(1-Benzyl-6-methoxy-1*H*-benzimidazol-2-yl)-2,2-dimethylpropan-1-one,  
25 1-[1-(3,3-Dimethylbutyl)-5-methoxy-1*H*-benzimidazol-2-yl]-2,2-dimethylpropan-1-one,  
1-[1-(3,3-Dimethylbutyl)-6-methoxy-1*H*-benzimidazol-2-yl]-2,2-dimethylpropan-1-one,  
*N,N*-Dibutyl-2-[2-(2,2-dimethylpropyl)-5-methoxy-1*H*-benzimidazol-1-yl]acetamide,  
*N,N*-Dibutyl-2-[2-(2,2-dimethylpropyl)-6-methoxy-1*H*-benzimidazol-1-yl]acetamide,  
1-[2-(2,2-Dimethylpropyl)-5-methoxy-1*H*-benzimidazol-1-yl]-3,3-dimethylbutan-2-one,  
30 1-[2-(2,2-Dimethylpropyl)-6-methoxy-1*H*-benzimidazol-1-yl]-3,3-dimethylbutan-2-one,  
1-[5-Methoxy-2-(2-phenylethyl)-1*H*-benzimidazol-1-yl]-3,3-dimethylbutan-2-one,  
1-[6-Methoxy-2-(2-phenylethyl)-1*H*-benzimidazol-1-yl]-3,3-dimethylbutan-2-one,  
1-(5-Methoxy-2-phenyl-1*H*-benzimidazol-1-yl)-3,3-dimethylbutan-2-one,

- 1-(6-Methoxy-2-phenyl-1*H*-benzimidazol-1-yl)-3,3-dimethylbutan-2-one,  
1-(2-Benzyl-5-methoxy-1*H*-benzimidazol-1-yl)-3,3-dimethylbutan-2-one,  
1-(2-Benzyl-6-methoxy-1*H*-benzimidazol-1-yl)-3,3-dimethylbutan-2-one,  
*N,N*-dibutyl-2-(2-isobutyryl-6-methoxy-1*H*-imidazo[4,5-*c*]pyridin-1-yl)acetamide,  
5 *N,N*-dibutyl-2-(2-isobutyryl-5-methoxy-3*H*-imidazo[4,5-*b*]pyridin-3-yl)acetamide,  
*N,N*-dibutyl-2-(2-isobutyryl-6-methoxy-1*H*-imidazo[4,5-*b*]pyridin-1-yl)acetamide,  
*N,N*-dibutyl-2-(8-isobutyryl-2-methoxy-9*H*-purin-9-yl)acetamide,  
*N,N*-dibutyl-2-(2-isobutyryl-6-methoxy-1*H*-imidazo[4,5-*b*]pyrazin-1-yl)acetamide,  
*N,N*-dibutyl-2-(6-isobutyryl-3-methoxy-5*H*-imidazo[4,5-*c*]pyridazin-5-yl)acetamide,  
10 *N,N*-dibutyl-2-(6-isobutyryl-3-methoxy-5*H*-imidazo[4,5-*e*][1,2,4]triazin-5-yl)acetamide,  
*N,N*-dibutyl-2-[2-(2,2-dimethylpropanoyl)-5-methoxy-3*H*-imidazo[4,5-*b*]pyridin-3-yl]acetamide  
*N,N*-dibutyl-2-(2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-imidazo[4,5-*c*]pyridin-1-yl)acetamide,  
*N,N*-dibutyl-2-(2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-imidazo[4,5-*b*]pyridin-1-yl)acetamide,  
*N,N*-dibutyl-2-(8-(2,2-dimethylpropanoyl)-2-methoxy-9*H*-purin-9-yl)acetamide,  
15 *N,N*-dibutyl-2-(2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-imidazo[4,5-*b*]pyrazin-1-yl)acetamide,  
*N,N*-dibutyl-2-(6-(2,2-dimethylpropanoyl)-3-methoxy-5*H*-imidazo[4,5-*c*]pyridazin-5-yl)acetamide,  
*N,N*-dibutyl-2-(6-(2,2-dimethylpropanoyl)-3-methoxy-5*H*-imidazo[4,5-*e*][1,2,4]triazin-5-yl)acetamide,  
2-[2-(2,2-dimethylpropanoyl)-5-methoxy-3*H*-imidazo[4,5-*b*]pyridin-3-yl]-*N,N*-bis(3-  
methylbutyl)acetamide,  
20 2-(2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-imidazo[4,5-*c*]pyridin-1-yl)-*N,N*-bis(3-  
methylbutyl)acetamide,  
2-(2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-imidazo[4,5-*b*]pyridin-1-yl)-*N,N*-bis(3-  
methylbutyl)acetamide,  
2-(8-(2,2-dimethylpropanoyl)-2-methoxy-9*H*-purin-9-yl)-*N,N*-bis(3-methylbutyl)acetamide,  
25 2-(2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-imidazo[4,5-*b*]pyrazin-1-yl)-*N,N*-bis(3-  
methylbutyl)acetamide,  
2-(6-(2,2-dimethylpropanoyl)-3-methoxy-5*H*-imidazo[4,5-*c*]pyridazin-5-yl)-*N,N*-bis(3-  
methylbutyl)acetamide,  
2-[6-(2,2-dimethylpropanoyl)-3-methoxy-5*H*-imidazo[4,5-*e*][1,2,4]triazin-5-yl]-*N,N*-bis(3-  
30 methylbutyl)acetamide,  
2-(2-isobutyryl-5-methoxy-3*H*-imidazo[4,5-*b*]pyridin-3-yl)-*N,N*-bis(3-methylbutyl)acetamide,  
2-(2-isobutyryl-6-methoxy-1*H*-imidazo[4,5-*c*]pyridin-1-yl)-*N,N*-bis(3-methylbutyl)acetamide,  
2-(2-isobutyryl-6-methoxy-1*H*-imidazo[4,5-*b*]pyridin-1-yl)-*N,N*-bis(3-methylbutyl)acetamide,  
2-(8-isobutyryl-2-methoxy-9*H*-purin-9-yl)-*N,N*-bis(3-methylbutyl)acetamide,

- 2-(2-isobutyryl-6-methoxy-1*H*-imidazo[4,5-*b*]pyrazin-1-yl)-*N,N*-bis(3-methylbutyl)acetamide,  
2-(6-isobutyryl-3-methoxy-5*H*-imidazo[4,5-*c*]pyridazin-5-yl)-*N,N*-bis(3-methylbutyl)acetamide,  
2-[6-(2,2-dimethylpropanoyl)-3-methoxy-5*H*-imidazo[4,5-*e*][1,2,4]triazin-5-yl]-*N,N*-bis(3-methylbutyl)acetamide,
- 5 1-(2-benzoyl-6-methoxy-1*H*-benzimidazol-1-yl)-3,3-dimethylbutan-2-one,  
2-(2-benzoyl-6-methoxy-1*H*-benzimidazol-1-yl)-*N,N*-dibutylacetamide,  
2-(2-benzoyl-6-methoxy-1*H*-benzimidazol-1-yl)-*N,N*-bis(3-methylbutyl)acetamide,  
2-(2-benzoyl-6-methoxy-1*H*-benzimidazol-1-yl)-*N*-butyl-*N*-ethylacetamide,  
2-(2-benzoyl-6-methoxy-1*H*-benzimidazol-1-yl)-*N,N*-dipropylacetamide,
- 10 2-(2-benzoyl-6-methoxy-1*H*-benzimidazol-1-yl)-*N*-(*tert*-butyl)-*N*-ethylacetamide,  
2-(2-benzoyl-6-methoxy-1*H*-benzimidazol-1-yl)-*N*-ethyl-*N*-1,3-thiazol-2-ylacetamide,  
[6-methoxy-1-(3-methylbutyl)-1*H*-benzimidazol-2-yl](phenyl)methanone,  
[1-(2-ethylbutyl)-6-methoxy-1*H*-benzimidazol-2-yl](phenyl)methanone,  
[1-(3,3-dimethylbutyl)-6-methoxy-1*H*-benzimidazol-2-yl](phenyl)methanone,
- 15 *N*-benzyl-2-[2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-*N*-ethylacetamide,  
2-(2-isobutyryl-6-methoxy-1*H*-benzimidazol-1-yl)-*N,N*-bis(3-methylbutyl)acetamide,  
*N,N*-dibutyl-2-(2-isobutyryl-6-methoxy-1*H*-benzimidazol-1-yl)acetamide,  
*N,N*-diisobutyl-2-(2-isobutyryl-6-methoxy-1*H*-benzimidazol-1-yl)acetamide,  
2-(2-isobutyryl-6-methoxy-1*H*-benzimidazol-1-yl)-*N,N*-dipropylacetamide,
- 20 *N*-(cyclopropylmethyl)-2-(2-isobutyryl-6-methoxy-1*H*-benzimidazol-1-yl)-*N*-propylacetamide,  
*N*-ethyl-2-(2-isobutyryl-6-methoxy-1*H*-benzimidazol-1-yl)-*N*-(3-methylbutyl)acetamide,  
*N*-butyl-*N*-ethyl-2-(2-isobutyryl-6-methoxy-1*H*-benzimidazol-1-yl)acetamide,  
*N*-cyclohexyl-*N*-ethyl-2-(2-isobutyryl-6-methoxy-1*H*-benzimidazol-1-yl)acetamide,  
*N*-butyl-2-[2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-*N*-propylacetamide,
- 25 1-(1-{2-[trans-2,5-dipropylpyrrolidin-1-yl]-2-oxoethyl}-6-methoxy-1*H*-benzimidazol-2-yl)-2,2-dimethylpropan-1-one,  
1-(1-{2-[cis-2,5-dipropylpyrrolidin-1-yl]-2-oxoethyl}-6-methoxy-1*H*-benzimidazol-2-yl)-2,2-dimethylpropan-1-one,  
1-(2-isobutyryl-6-methoxy-1*H*-benzimidazol-1-yl)-3,3-dimethylbutan-2-one,
- 30 *N*-(3,3-dimethylbutyl)-*N*-ethyl-2-(2-isobutyryl-6-methoxy-1*H*-benzimidazol-1-yl)acetamide,  
*N*-butyl-2-(2-isobutyryl-6-methoxy-1*H*-benzimidazol-1-yl)-*N*-propylacetamide,  
*N*-(3,3-dimethylbutyl)-2-[2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-*N*-propylacetamide,

- 2-[2-(2,2-dimethylpropanoyl)-6-methoxy-1*H*-benzimidazol-1-yl]-*N*-(2,2-dimethylpropyl)-*N*-ethylacetamide,
- 2-{2-[4-(hydroxymethyl)benzoyl]-6-methoxy-1*H*-benzimidazol-1-yl}-*N,N*-bis(3-methylbutyl)acetamide,
- 2-{2-[4-(hydroxymethyl)benzoyl]-6-methoxy-1*H*-benzimidazol-1-yl}-*N,N*-diisobutylacetamide,
- 5 *N*-(3,3-dimethylbutyl)-*N*-ethyl-2-{2-[4-(hydroxymethyl)benzoyl]-6-methoxy-1*H*-benzimidazol-1-yl}acetamide,
- 2-{2-[4-(4-trans-hydroxycyclohexyl)carbonyl]-6-methoxy-1*H*-benzimidazol-1-yl}-*N,N*-bis(3-methylbutyl)acetamide,
- N*-(3,3-dimethylbutyl)-2-{2-[4-(4-trans-hydroxycyclohexyl)carbonyl]-6-methoxy-1*H*-benzimidazol-1-yl}-*N*-propylacetamide,
- 10 *N*-(3,3-dimethylbutyl)-*N*-ethyl-2-{2-[4-(4-trans-hydroxycyclohexyl)carbonyl]-6-methoxy-1*H*-benzimidazol-1-yl}acetamide,
- N,N*-bis(3,3-dimethylbutyl)-2-{2-[4-(4-trans-hydroxycyclohexyl)carbonyl]-6-methoxy-1*H*-benzimidazol-1-yl}acetamide,
- 15 2-{2-[4-(4-cis-hydroxycyclohexyl)carbonyl]-6-methoxy-1*H*-benzimidazol-1-yl}-*N,N*-bis(3-methylbutyl)acetamide,
- 2-(2-{[4-(hydroxymethyl)-1-methylcyclohexyl]carbonyl}-6-methoxy-1*H*-benzimidazol-1-yl)-*N,N*-bis(3-methylbutyl)acetamide,
- N,N*-dibutyl-2-(2-{[4-(hydroxymethyl)-1-methylcyclohexyl]carbonyl}-6-methoxy-1*H*-benzimidazol-1-yl)acetamide,
- 20 2-(2-{[4-(hydroxymethyl)-1-methylcyclohexyl]carbonyl}-6-methoxy-1*H*-benzimidazol-1-yl)-*N,N*-diisobutylacetamide,
- N*-(3,3-dimethylbutyl)-*N*-ethyl-2-(2-{[4-(hydroxymethyl)-1-methylcyclohexyl]carbonyl}-6-methoxy-1*H*-benzimidazol-1-yl)acetamide,
- 25 *N*-butyl-2-(2-{[4-(hydroxymethyl)-1-methylcyclohexyl]carbonyl}-6-methoxy-1*H*-benzimidazol-1-yl)-*N*-propylacetamide,
- N*-(3,3-dimethylbutyl)-2-(2-{[4-(hydroxymethyl)-1-methylcyclohexyl]carbonyl}-6-methoxy-1*H*-benzimidazol-1-yl)-*N*-propylacetamide,
- N*-ethyl-2-(2-{[4-(hydroxymethyl)-1-methylcyclohexyl]carbonyl}-6-methoxy-1*H*-benzimidazol-1-yl)-*N*-(3-methylbutyl)acetamide,
- 30 1-{1-[2-(1-adamantyl)-2-oxoethyl]-6-methoxy-1*H*-benzimidazol-2-yl}-2,2-dimethylpropan-1-one,
- 1-{1-[2-(1-adamantyl)-2-oxoethyl]-6-methoxy-1*H*-benzimidazol-2-yl}-2-methylpropan-1-one,
- 1-(2-benzyl-5-methoxy-1*H*-benzimidazol-1-yl)-3,3-dimethylbutan-2-one,
- 1-(5-methoxy-2-phenyl-1*H*-benzimidazol-1-yl)-3,3-dimethylbutan-2-one,



1-[5-methoxy-2-(2-phenylethyl)-1*H*-benzimidazol-1-yl]-3,3-dimethylbutan-2-one,  
or a pharmaceutically acceptable salt, enantiomer, diastereomer or mixture thereof.

5 8. A method for treating ocular hypertension or glaucoma comprising  
administration to a patient in need of such treatment a therapeutically effective amount of a compound of  
structural formula I of claim 1.

10 9. A method for treating macular edema, macular degeneration, increasing retinal  
and optic nerve head blood velocity, increasing retinal and optic nerve oxygen tension, and/or a  
neuroprotective effect comprising administration to a patient in need of such treatment a  
pharmaceutically effective amount of a compound of claim 1; or a pharmaceutically acceptable salt,  
enantiomer, diastereomer or mixture thereof.

15 10. A method of preventing repolarization or hyperpolarization of a mammalian cell  
containing potassium channel or a method of treating Alzheimer's Disease, depression, cognitive  
disorders, and/or arrhythmia disorders in a patient in need thereof comprising administering a  
pharmaceutically effective amount of a compound according to Claim 1, or a pharmaceutically  
acceptable salt, enantiomer, diastereomer or mixture thereof.

20 11. A method of treating diabetes in a patient in need thereof comprising  
administering a pharmaceutically effective amount of a compound according to claim 1, or a  
pharmaceutically acceptable salt, enantiomer, diastereomer or mixture thereof.

25 12. A composition comprising a compound of formula I of claim 1 and a  
pharmaceutically acceptable carrier.

30 13 The composition according to Claim 12 wherein the compound of formula I is  
applied as a topical formulation, said topical formulation administered as a solution or suspension and  
optionally containing xanthan gum or gellan gum.

14. A composition according to claim 13 wherein one or more of an active  
ingredient belonging to the group consisting of:  $\beta$ -adrenergic blocking agent, parasympatho-mimetic  
agent, sympathomimetic agent, carbonic anhydrase inhibitor, EP4 agonist, a prostaglandin or derivative  
thereof, hypotensive lipid, neuroprotectant, and/or 5-HT<sub>2</sub> receptor agonist is optionally added.

15. A composition according to claim 14 wherein the  $\beta$ -adrenergic blocking agent is timolol, betaxolol, levobetaxolol, carteolol, or levobunolol; the parasympathomimetic agent is  
5 pilocarpine; the sympathomimetic agent is epinephrine, brimonidine, iopidine, clonidine, or para-aminoclonidine, the carbonic anhydrase inhibitor is dorzolamide, acetazolamide, metazolamide or brinzolamide; the prostaglandin is latanoprost, travaprostone, unoprostone, rescala, or S1033, the  
hypotensive lipid is lumigan, the neuroprotectant is eliprotil, R-eliprotil or memantine; and the 5-HT<sub>2</sub>  
10 receptor agonist is 1-(2-aminopropyl)-3-methyl-1H-imidazol-6-ol fumarate or 2-(3-chloro-6-methoxy-indazol-1-yl)-1-methyl-ethylamine.